MDJ:rfb 9/19/00 5922-56160

PATENT
Attorney Reference Number 5922-56160/MDJ
Express Mail Label No. EL640822876US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Babbitt et al. Art Unit:

Application No.:

Filed:

For: APPARATUS AND METHODS FOR ROUTING OF OPTICAL BEAMS VIA TIME-DOMAIN SPATIAL-SPECTRAL FILTERING

Examiner:

Date: September 19, 2000

COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

#5/B
PRE-AMDT
J. McClelland
4/7/01

PRELIMINARY AMENDMENT B

Prior to examination, please amend the above-identified application as follows:

In the Claims:

27. (Amended) A composite grating, comprising:

(a) an active material; and

(b) an ordered assemblage of subgratings supported by the active material for receiving input pulses along an input path and transmitting output pulses along an output path, wherein

(1) each subgrating satisfies a **[one of (i) the Bragg condition and (ii) the superficial]** grating condition so as to diffract a respective subbandwidth of light from the input path to the output path, and

(2) the subgratings are configured such that (i) a first input optical pulse, incident to **[interacting with]** the active material along the input path and having a first prescribed input temporal waveform, **[triggers]** produces an output optical pulse having a prescribed output temporal waveform and propagating along the output path, and (ii) a second input optical pulse, **[interacting with]** incident to the active material along the input path and having a second prescribed temporal waveform different from the first prescribed temporal waveform, does not **[trigger]** produce an output optical pulse having the prescribed output temporal waveform and propagating along the output path.